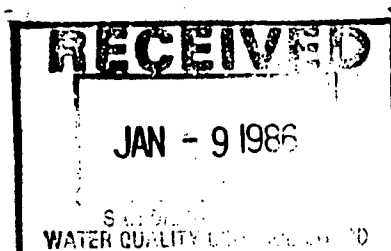


3467 Kurtz Street
San Diego, California 92110
(619) 224-2911

Woodward-Clyde Consultants

December 19, 1985
Project No. 55931X-TS01

Hazardous Materials Unit
Department of Health Services
County of San Diego
1700 Pacific Highway
San Diego, California 92101



Attention: Ms. Cheri Eir

REPORT ON TANK CLOSURES
PERMIT AT0111
SOLAR HARBOR DRIVE FACILITY
SAN DIEGO, CALIFORNIA

Gentlemen:

On December 9, 1985, four (4) underground storage tanks at the subject facility were removed under Permit No. AT0111. The removal was accomplished by Fritz A. Nachant Incorporated and observed by Woodward-Clyde Consultants (WCC), both under contract to Solar Turbines Incorporated (Solar). Ms. Vickie Church of your office and Mr. Van Davis of the San Diego Fire Department were present as the tanks were lifted from the excavations.

Soils collected from above, beside, and below the tank locations were tested by WCC personnel using a field head space analysis technique developed for screening potential hydrocarbon contamination. The technique involves placing about 500 grams of soil in a sealable plastic bag (baggie), allowing it to equilibrate for several minutes, then analyzing the air (vapors) trapped inside the baggie using an organic vapor meter (OVM). The OVM used for this project was Model AID 580 manufactured by Analytical Instrument Development Corporation, and it employed a 10.2 e.v. photoionization detector calibrated to benzene. Results of the vapor analyses are presented in the attached table.

The field data suggest that soils from two of the four tank locations were uncontaminated with respect to organic compounds which could be sensed by the OVM. Soils from the remaining two tank locations appeared to have contamination present. On the basis of this screening, soil samples were collected and submitted for confirmatory laboratory analyses.

The laboratory data, also presented in the attached table, confirmed the field analyses. Additional samples were subsequently collected by hand auger from beneath the apparently contaminated tank locations. Baggie analyses showed that the concentration of contaminant at one of the locations decreased with depth; the concentration of contaminant at the

AK-11
DR



other location increased with depth. Soil samples were collected from just above groundwater at both locations and submitted for laboratory analyses. The results show total extractable hydrocarbon concentrations to be 1,828 and 1,970 milligrams per kilogram of soil; ~~total chlorinated hydrocarbon~~ concentrations were measured at 0.223 and 0.113 milligrams per kilogram of soil. No attempt to delineate the lateral extent of contamination was made, and no groundwater samples were collected.

The tanks that were removed had reportedly been used to store turbine lubricating oils. On the basis of the laboratory chromatograms, the soil contamination appears to have originated from jet fuels rather than lubricating oil. No data exist which link the observed soil contamination to a release of product from the removed tanks.

The soils excavated during tank removals have been placed back into the respective locations. No contaminated soil has been removed from these locations to date.

The removed tanks have been cleaned of contamination residues and scrapped. Associated underground piping also has been removed from the four (4) locations.

Cleanup at the two locations where contamination was observed has not yet been performed. Cleanup options are currently being evaluated, and cleanup costs remain undetermined.

Additional underground storage tanks are scheduled to be excavated at this facility over the course of the next few months. Contamination findings at these other locations will have a bearing on cleanup actions throughout the facility. We plan to keep you advised of those findings.

If you have questions on this matter, please give us a call.

Very truly yours,

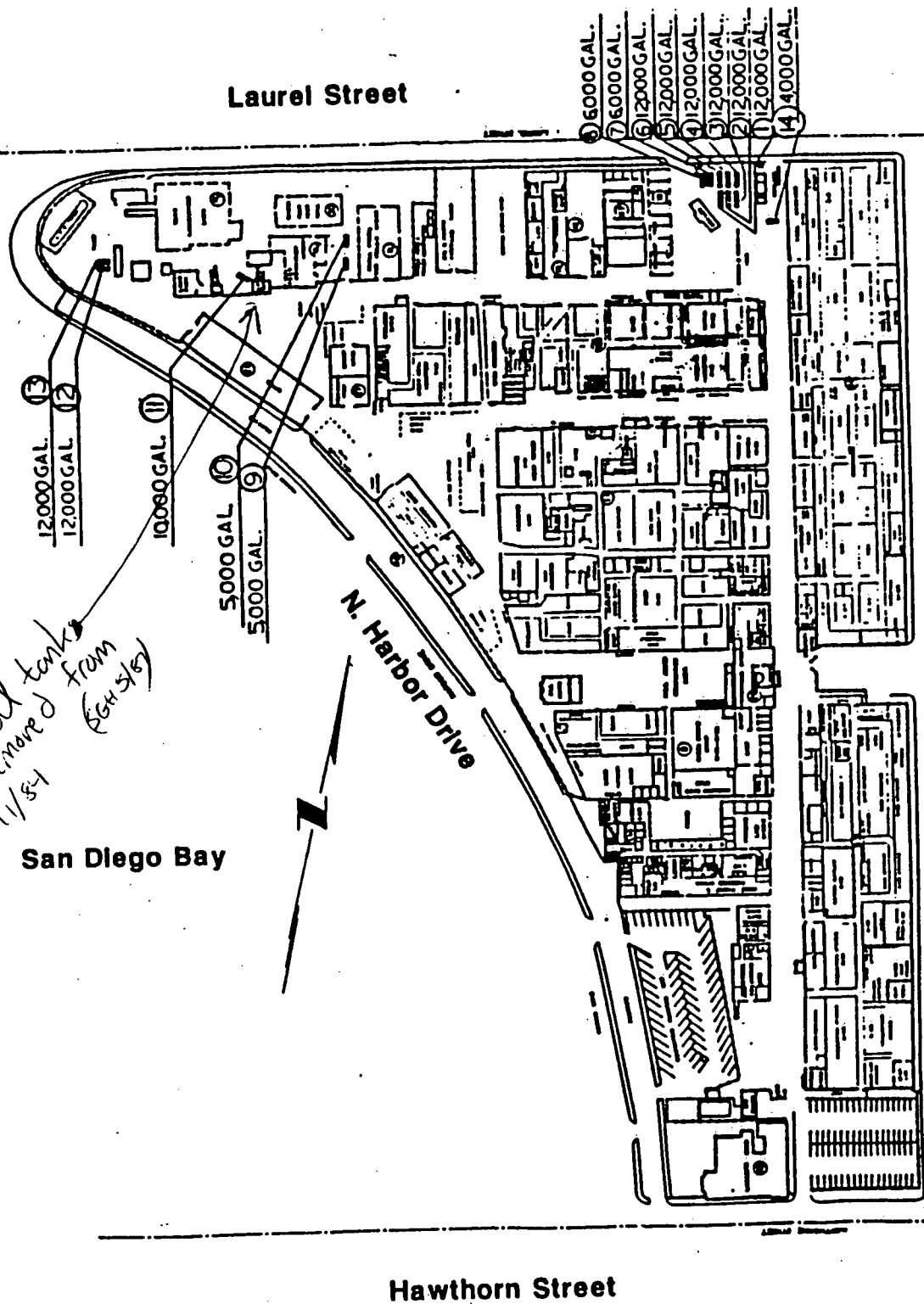
WOODWARD-CLYDE CONSULTANTS


Jimmie L. Greenslate, Ph.D.
Project Manager

JLG/lg

cc: A. W. Anderson, Jr. (Solar)
Ed Hillary (Solar)

*Crude oil tank
was removed from
here in 11/84
(643187)*



SITE MAP WITH TANK LOCATIONS
SOLAR TURBINES INCORPORATED
HARBOR DRIVE FACILITY

DRAWN BY: bn	CHECKED BY: <input checked="" type="checkbox"/>	PROJECT NO: 55931X-TSO3	DATE: 10-29-86	FIGURE NO: 1
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